CLARK COUNTY
CLEAN WATER PROGRAM
ANNUAL REPORT
2000

BY

CLARK COUNTY
CLEAN WATER COMMISSION

TO

Clark County
Board of Commissioners

Clark County
Department of Public Works
4/25/2001

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Introduction

In 2000, Clark County implemented a Clean Water Program to comply with requirements of the federal Clean Water Act.[1] Under this Act, Clark County is required to obtain a NPDES (National Pollutant Discharge Elimination System) stormwater permit for the County's stormwater drainage system that discharges into surface water or groundwater. The intent of the permit, which is issued by the State of Washington Department of Ecology, is to protect our groundwater, streams, lakes and other surface waters for beneficial uses such as, water supply purposes, recreational uses, fish rearing, and wildlife habitat. This is accomplished by controlling the adverse impacts of stormwater runoff, primarily excessive stormwater flows and pollutants.

Goals

The Clean Water Program consists of several goals in which to protect our groundwater, streams, lakes and other surface waters for water supply purposes, recreational uses, fish rearing, and wildlife habitat. These goals also ensure that Clark County complies with the NPDES permit:

- Ensure the Clark County stormwater sewer system discharges clean water;
- Establish a citizen advisory commission to oversee the Clean Water Program;
- Meet all permit requirements on time;
- Provide fiscal accountability;
- Coordinate among and within County departments effectively;
- Provide opportunities for public involvement and education; and
- Maintain high-quality customer service.

Objectives

To achieve these goals, the following objectives are being used:

- Coordinating and tracking compliance with the NPDES permit;
- Implementing a nine-member Clark County Clean Water Commission to oversee the Clean Water Commission and advise the Board County of Commission on program's activities;
- Developing an information tracking system to enhance program evaluation and reporting;
- Developing a standardized format for data gathering and compilation;
- Completing and establishing a County stormwater facilities inventory;
- Providing services as efficiently as possible;
- Coordinating improved interdepartmental communications to ensure effective and efficient utilization from resources; and

[1] Some programs and services were initiated in 1999 and are recorded as part of this first annual Clean Water Program report.

- Coordinating public outreach/education effort that includes an accurate and consistent message for all departments; and
- Implementing customer service standards.

Clean Water Programs and Activities

The Clean Water Program/NPDES permit outlines several activities that Clark County must complete as part of its stormwater management program. Some of which include a continuation or modification of existing County programs and activities. In other cases, the County has implemented new programs and activities in order to comply with the permit. These programs and activities fall into seven general program areas:

- **Regulation and Enforcement:** Clark County revised its stormwater and erosion control regulations in order to meet state standards; improved measures to control erosion; and increased inspections to enforce stormwater related development regulations.

  Through Clean Water Program funding, Clark County has added another building inspector to its roster, allowing the County now to perform approximately 66 inspections per day rather than 55 inspections. All building inspectors have received education in erosion control, and it is now a priority when they are in the field. The staff person hired as a result of Clean Water funding is the lead inspector for erosion control inspection and handles special questions and situations. In 2000, the Building Division performed 7,700 inspections and issued 718 corrections and 21 stop work orders.

  Two additional engineering technicians hired through Clean Water Program funding mean that the County now performs an average of 42 daily site infrastructure inspections related to stormwater and erosion control. In the past, the County's average was 30 per day. During 2000 the County performed 1,121 inspections, issued 16 correction letters and 6 citations.

  Code Enforcement now has two new inspectors dedicated solely to the Clean Water Program. Prior to the initiation of the Clean Water Program, code enforcement personnel were not trained in this area, nor was it their top priority. In 2000, Code Enforcement performed 2,197 inspections and issued 353 correction notices/stop work citations.

- **Operation and Maintenance:** The County has also carried out additional inspection and maintenance of storm sewers, catch basins, drywells, swales, roadside ditches and culverts, ponds, and other drainage facilities owned and operated by Clark County; established a computer-based stormwater facility maintenance tracking and scheduling program; increased the level of street sweeping; and performed annual inspections of private stormwater facilities.

Maintaining stormwater facilities, which helps keep sediment and pollutants from entering the storm sewer system, is a key component of the Clean Water Program. Some of the activities under way include:

- *Mowing 236 county-owned bioswales**: Now 4 times annually; in the past, as requested to meet public's expectations.
- *Mowing 127 county-owned detention/retention ponds*: Now 4 times annually; in the past, as requested to meet public's expectations.
- *Inspecting and cleaning 5443 county-owned catchbasins**: Now carried out annually; in the past, cleaned and inspected every three years and in emergencies.
- *Inspecting and cleaning 811 county-owned drywells*: Placed on a schedule for inspection every 3 to 5 years. Cleaned as needed. Problem drywells are cleaned more frequently; in the past, there was no regulary maintenance program and drywells were inspected in emergencies*
- *Sweeping approximately 105 miles of major roadway**: Now carried out 12 times annually; in the past, 10 to 12 times annually.
- *Sweeping approximately 450 miles of neighborhood roadway** Now carried out 9 times annually; in the past, 6 times annually.

** As of the end of August 2000, this has either been completed and/or has exceeded their targets, based on an annual cycle beginning September 1, 1999.*

- **Monitoring and Evaluation:** County staff are establishing a centralized stormwater management data system; inventorying and mapping public and private stormwater systems; monitoring and evaluating water quality and flow data from storm sewers and stormwater impacts to the receiving water bodies; and monitoring and reporting on the implementation and effectiveness of the various stormwater management programs and activities.

  As part of the County Illicit Discharge Detection and Elimination Project, staff visited 109 outfall sites between August 1, 2000 and October 31, 2000. Water samples were collected at 38 of the 109 sites. Ten suspected illicit discharges were referred to follow-up staff based on field visit information or observations by field staff en route to selected screening points. Three additional sites were referred upon review of laboratory data.

  Generally, the available literature suggests that approximately 10 percent of the outfall screening sites visited can be expected to show evidence of illicit connections or illicit discharges. The 13 referrals made in Clark County represent approximately 12 percent of the 109 sites visited. However, approximately one half of the referrals were based on chance observations of suspected problems by field staff, rather than on conditions found at an actual sampling point. Staff observations and water quality samples indicate that water at the majority of the sampled sites consisted primarily of uncontaminated flows.

The 13 referrals for suspected illicit connections or discharges included the following:

1) An auto repair shop disposing of shop waste and washwater into the storm drain.
2) An auto repair shop with improper disposal of leaking transmissions, among other problems.
3) An auto detail shop discharging soapy wash water into the storm drain.
4) Several manholes with oily, dirty water in the vicinity of a restaurant and a RV service center.
5) A mini-storage operation with evidence of wash-water discharge to a creek.
6) A gas station appearing to discharge dirty water and sludge to the storm drain.
7) A rental company discharging soapy wash water and cleaners into a storm drain.
8) An industrial site possibly discharging contaminated process water into the storm drain.
9) A culvert and ditch downstream from a commercial district with fecal coliform, sediment, ammonia, and chlorine all detected.
10) A golf course drain discharging colored water and ammonia into a creek.

These ten sites were referred to NPDES Technical Assistance staff for follow-up. The following three sites were referred to Clark County Code Enforcement staff:

11) A large graded area immediately adjacent to a rural creek with no BMPs in place.
12) A residential subdivision with poorly maintained BMPs likely to discharge sediment to the storm drain.
13) Utility work in a residential subdivision resulting in erosion and sediment in the immediate vicinity of a storm drain and creek, with no BMPs in place.

Table 1 shows the number of sample sites exceeding state water quality standards or showing elevated levels of selected parameters (based on the 38 sites where water samples were collected). Criteria marked with an asterisk represent Washington Class A water quality standards. All other criteria were chosen to reflect the level of a given parameter felt to be indicative of possible problems.

Table 1. Number of sites meeting criteria for possible illicit discharges.

Parameter	Criteria for Inclusion in Tally	Number of Sites
Temperature	>18 degrees C *	3
pH	<6.5 or >8.5 units *	0
Turbidity	>5 NTU over background *	1
Copper	present	1
Iron	present	14
Color	>30 Hach units	10
Total Chlorine	present	5
Ammonia	present	6
Fecal Coliform	>100 col/100 ml*	12
Odor	present	1
Clarity	other than clear	5
Floatables	present	1
Deposits/Stains	present	7
*indicates Washington Class A water quality standard		

Based on ranking criteria and professional judgement, 39 sites were given a "High" re-visitation rank. These sites will be re-visited during the summer 2001 sampling season. Of the remaining sites, 15 received a "Medium" rank, 27 received a "Low" rank, and 28 received an "Omit" rank. Sites with "Medium" or "Low" rankings will be re-visited in 2002 or 2003, respectively, as funding and staff availability allow.

Full results from individual sites may be found in the NPDES database.

Future Program Modifications

Screening project field activities will resume during the 2001 dry season (approximately June-September). Systematic screening of previously unvisited quarter sections will continue, focusing on urban and urbanizing areas. As noted, sites ranking "High" with regards to re-visitation frequency during 2000 will also be re-checked in 2001.[2]

[2] **Sampling Parameter Changes**

Based on results from the initial year of sampling, several modifications will be made to the list of sampled parameters, as follows:

1) Total Chlorine will no longer be analyzed by staff using a Hach kit. The kits have not proven sensitive enough to detect chlorine at levels commonly found in illicit discharges. Samples will be collected in specialized bottles and analyzed at NCA.
2) Hardness will no longer be analyzed. Hardness values from the initial season correlated very highly with conductivity. Due to this correlation, hardness analysis does not appear to represent an efficient use of limited analysis dollars.

- **Public Involvement and Education:** County staff is busy establishing and implementing a public involvement and education outreach program that involves citizens, businesses and schools in reducing stormwater related pollution.

  The River Rangers Program has reached more than 400 students in the 1999/2000 school year, which has doubled from the previous year. It consists of a 45-minute presentation to 4th-graders about nonpoint pollution and wastewater treatment. The goal is to get students enthusiastic about protecting their surface water and groundwater. Volunteers from Clark County and City of Vancouver staff conduct the presentations.

  The Natural Lawn Care Program presented a puppet show last school year to more than 6000 primary-school children. Additionally, more than 1500 booklets on natural alternatives for the lawn and garden have been distributed to the public.

  Clark County/WSU Watershed Stewards Program has held three 10-week sessions, training 28 volunteers since its inception in the fall of 1999. The Clean Water Program will allow for watershed and water quality protection training of additional volunteers during a fourth training session in 2001.

  As part of the *Stormwater-specific Outreach and Education* effort, the business community provided comments on the County's new *Stormwater Pollution Prevention Manual – Best Management Practices for Businesses and Government Agencies*[3]. The manual adopted November 2000 by the Board of Clark County

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3) Copper will no longer be analyzed by staff with test strips. The strips have not proven sensitive enough to detect copper at levels commonly found in illicit discharges. Samples will be sent to NCA for analysis.
4) Iron will no longer be analyzed. Positive tests for iron during the initial season were almost exclusively associated with the presence of orange iron-bacteria. This is easily assessed visually, and does not generally indicate an illicit connection.
5) Fecal coliform will no longer be analyzed. E. coli and enterococci have been shown to be more reliable indicators of pathogenic organisms. Recent reductions in per sample analysis costs have made E. coli or enterococci testing financially viable. E. coli or enterococci will therefore replace fecal coliform.
6) Zinc will replace iron as a standard test for all samples because it is more commonly analyzed as a storm-water and illicit discharge pollutant. Samples will be sent to NCA for analysis.
7) Detergent (surfactant) testing will be further evaluated as a testing parameter. Recent literature further supports the use of detergents as a reliable indicator of illicit discharges. Further attempts will be made to find a practical means to add this parameter.

[3] What are Best Management Practices (BMPs)? According to the *2000 Final Draft Washington State Department of Ecology Stormwater Management Manual for Western Washington*, BMPs are activities intended to prevent pollution from entering stormwater.

Commissioners, makes it easy to find out which practices in a particular business area are most environmentally sound with regard to preventing stormwater pollution. Development of the manual was conducted as part of the County's Clean Water Program.

The intent of the manual is as a reference tool. It includes 38 activity sheets, each one dealing with best management practices for a specific type of business, such as carpet cleaning, landscaping, and automotive services.

The purpose and focus of the manual is on education because, currently, businesses are legally required to follow best management practices. County staff want to work with businesses to help them carry out their activities in the most environmentally-friendly way possible. The manual is only one component of the County's outreach efforts to businesses related to the Clean Water Program. In 2000, County staff made 194 visits (165 initial visits and 29 follow up visits) to businesses regarding stormwater issues. In 1999, before the Clean Water Program, there were 18 such visits.

Prior to these education and technical visits, 42 or 25% of businesses followed proper best management practices. After a follow up visit, 15 or 52% began following best management practices. Throughout 2000 only one business required a referral to Clark County Code Enforcement. Most of the focus was on used and new car dealerships that washed vehicles outside on the pavement (allowing soap to wash into drains that discharge into area creeks or into the ground) and/or oils leaking from vehicle stored in the open.

Clean Water Program staff has been actively coordinating educational efforts with schools districts in Clark County and with Washington State University, Vancouver Campus to broaden students understanding of, and appreciation for, water resources protection at the local level. Students at various schools are doing field trips along creeks, attending Water Resources Education Center events, and performing their own science fair to learn about the areas environment and water.

- **Capital Improvement Projects:** During 2000, the following capital improvements have been implemented. They are:

    - Whatley Pit Decant Facility— A $412,000 stormwater decant facility upgrade is underway in Whatley Pit[4]. The upgrade is a joint Clark County, City of

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There are basically two types of BMPs, "structural source control BMPs" and "operational BMPs". Structural source control BMPs are physical, structural, or mechanical devices that are used to prevent pollution from entering the County's storm sewer system (i.e., roadside ditches, stormwater water holding pond, etc.). Operational BMPs are schedules of activities, prohibition of practices, and other managerial practices to prevent or reduce pollutants from entering stormwater through the storm sewer system.

[4] Clark County is expanding their dewatering facility for treating storm catch basin waste by about 6000 square feet, and building a roof over the entire plant that will cover

Vancouver, and WSDOT project to cover the decant facility and double its capacity. The cost of this project is being paid by WSDOT ($68,666 of the $412,000 is WSDOT's fee to the Clark County Clean Water Program).

- Cold Creek Culvert Replacement at N.E. 56th Avenue—This capital improvement consists of replacing 500 liner feet of 54 inch corrugated metal piping to improve the movement of stormwater in the area. This is a $76,726[5] project.

- Northeast 39th Street Drainage Overflow Outlet Line—An overflow line was designed in 2000 to provide an outlet for stormwater. Construction is scheduled in 2001 and will cost $6,640 ($2,640 was spent in 2000).

- Thomas Lake Regional Stormwater Facility—A 10-acre site is being modified to provide improved water quality treatment and flood control storage. The project is in the site design and permit application phase. It is anticipated that the project will cost $728,804 ($156,609 in 2000) and be complete in 2002.

The overall idea is to have capital plans in place for each watershed in unincorporated Clark County. Work has begun in the Lacamas Watershed.

During 2000, Clark County developed a three-part strategy for the management of the Lacamas Watershed. Part 1 addresses near term issues, such as immediate flooding to

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approximately 12,000 square feet. All construction will be finished by December 31, 2001. By expanding the facility, Clark County will be able to bring in and process additional catch basin waste from the City of Vancouver and Washington State Department of Transportation (WSDOT).

The following is out of the Centennial Clean Water Fund Summary of project:

Clark County intends to upgrade and expand its existing Whatley Storm Water Decant Facility. The facility is designed to treat and manage street or *vactor* waste. These wastes include liquid and solid wastes collected during maintenance of storm water catch basins, detention/retention ponds and similar storm water treatment and conveyance structures. The proposed upgrade is the second phase of the development of the facility and, hence, the project is referred to as Phase II. The upgraded facility will accommodate catch basin wastes from public roads under the jurisdiction of Clark County, City of Vancouver, and the Washington State Department of Transportation. Once Phase II construction of the facility is completed, the decant facility will be able to effectively process a greater volume of vactor wastes, rendering solids safe for beneficial reuse, and the decanted water acceptable for discharge to the sanitary sewer system, if necessary.

[5] Funds for Cold Creek Culvert Replacement at N.E. 56th Avenue, Northeast 39th Street Drainage Overflow Outlet Line, and Thomas Lake Regional Stormwater Facility are from the former Burnt Bridge Creek Storm Surface Water Utility. These dollars can only be used to complete capital work that was initiated as part of the former utility.

prime agricultural properties and the need for increased community awareness about water quality protection. County Public Works Department in cooperation with landowners deepened Upper Big Ditch to its original depth thus providing more flood storage. Phase 2, is addresses additional flooding and water quality concerns within Lacamas Creek, Big Ditch and its laterals. During 2001, staff will examine the feasibility of returning Big Ditch to its original condition. Staff will activity coordinate this effort with landowners and in the area and governmental agencies to ensure protection of the environment. Phase 3 is build cooperation among key stakeholders and use state grant (seed money) to implementation of ongoing local protection and funding effort. Already the County has been working closely with the City of Camas to start the process of providing a coordinate approach to manage Lacamas Lake. In addition to Camas, County staff has and is activity working on identifying other key stakeholders in the watershed to provide a coordinates approach for stormwater related capital improvements.

- **Clean Water Billing/Fee:** During the past year a billing system was established to fund the implementation of activities within the Clean Water Program. Bills were sent to over 54,367 customers in unincorporated Clark County. Ensuring prompt and accurate information regarding clean water fees, Environmental Services staff in conjunction with staff from Public Works Operations Division, Public Works Administration, Clark County Treasurer's Office, and County Assessment and GIS coordinated and handled over 4,000 calls from Clean Water Fee program customers. In addition, Environmental Services staff addressed numerous e-mails and letters regarding the fee. Altogether, about 60 individuals have appealed their fee to the Director of Public Works/County Engineer. Approximately half of these were modified in favor of the customer. Four customers have filed an appeal with a Clark County Hearings Examiner. The Hearings Examiner denied two of the appeals. The remaining two appeals will be completed this spring 2001.

- **Coordination:** Clark County Department of Public Works has and is coordinating activities among County departments and divisions to verify compliance with the Clean Water Act and ensure there is no overlap between services (see Organizational Structure). This includes coordinating the Clean Water Program with the County's effort to comply with Endangered Species Act.

  The nine-members of the Clark County Clean Water Commission, are responsible for ensuring that the clean water effort is responsive to citizens. Specifically, the Commission is charged with the task of monitoring the Clean Water Program to ensure it is:

  - *Acceptable—it is fair and equitable;*
  - *Effective and complete—it meets NPDES permit requirements (protects water resources from stormwater pollution);*
  - *Efficient— it is easy to understand and administer; and*
  - *Accountable—one can track the funds, costs and effectiveness of the work.*

During 2000, the Clark County Clean Water Commission held 15 public meetings/work sessions[6]. Many of the Commission's responsibilities are described in the Organizational Structure section.

Products and Schedule

During this past year, staff delivered several Clean Water Program products to the Clark County Board of Commissioners, Clark County Clean Water Commission, Washington Department of Ecology, and to interested citizens of unincorporated Clark County. These products are as listed by permit condition.

NPDES Permit Requirement (Products)	Schedule
S9.A.1. Make code revisions to adopt minimum requirements and best management practices and make code revisions for redevelopment equivalent to those found in the Washington Department of Ecology Stormwater Management Manual for the Puget Sound Basin (February 1992).	Adopted by 7/31/2000
S9.A.2. Draft and adopt a storm sewer maintenance ordinance to require all existing private storm sewers be maintained or repaired at County standards to assure proper function and removal of trapped sediment and other pollutants.	Adopted by 7/31/2000
S9.A.3. Add two Code Enforcement Officers to improve enforcement of water quality protection requirements.	First code enforcement officer in place 8/31/1999; Second code enforcement officer in place as of 2/28/2000
S9.A.4. Add two Erosion Control Inspectors (one for the Building Division and one for Development Inspections Section) to improve enforcement of stormwater and erosion control requirements	Erosion control officers hired by 3/31/2000
S9.A.5. Add one Stormwater Facility Inspector for new development to ensure new stormwater facilities function properly.	Stormwater facility inspector hired by 7/31/2000
S9.A.6. As part of the Clean Water Ordinance, develop a tracking system to inventory private systems and schedule periodic inspection.	In place as of 7/31/2000
S9.B.1. Increase street sweeping of arterial roadways from ten to twelve times per year and five to nine times per year for subdivisions.	Initiated 8/31/1999
S9.B.2. Change swale maintenance from a "request response" to a "routine program" that provides mowing to control noxious weeds, remove trash and debris, contain and remove hazardous materials, etc., at least four times per year.	Initiated on 8/31/1999
S9.B.3. Maintain stormwater detention and retention	Started 3/31/2000

[6] The Clark County Clean Water Commission meets the first and third Wednesday of each month from 6:00 p.m. to 8:30 p.m. at the Clark County Public Works Operations Center, 4700 NE 78th Street, Vancouver. Meetings are open to the public.

facilities as required by Washington Department of Ecology Stormwater Management Manual for the Puget Sound Basin (February 1992).	
S9.B.4. Change roadside ditch and culvert maintenance practices from complaint response to a systemic approach.	Began 3/31/2000
S9.B.5. Add one Private Facilities Inspector to perform inspections of private stormwater facilities, respond to complaints, provide technical assistance for storm sewer maintenance, and provide follow-up inspections as necessary.	Initiated 7/31/2000
S9.B.6. Implement a spill response program to minimize the accidental release of chemicals entering the County's storm sewer system.	In place as of 7/31/2000
S9.B.7. Perform annual storm pipe maintenance to minimize sediment flushed into streams.	In place as of 3/31/2000
S9.B.8. Begin yearly catch basin inspection and cleaning to maintain hydraulic capacity and reduce the amount of sediment entering streams.	In place as of 8/31/1999
S9.B.9. Increase drywell cleaning from every 10 years to a 5-year cleaning cycle, and clean manholes annually.	Started 3/31/2000
S9.B.11. Develop a program to map and inventory private stormwater systems and track private facilities maintenance.	In place as of 7/31/2000
S9.C.1. Develop a centralized and standardized data management and reporting system for all data relevant to the stormwater management program and NPDES permit compliance to include water resources data, summaries of County operation and maintenance work, inspections, enforcement actions, and budget tracking.	Started 12/31/2000
S9.C.2. Establish a storm sewer maintenance program and inventory in GIS.	In place as of 12/31/2000
S9.C.3. Implement a monitoring program to determine if stormwater facilities perform as designed, erosion control measures are in place, wetland convenants are being followed, wetland mitigations are implemented as designed, and source control Best Management Practices are in place at commercial and industrial sites.	In place as of 7/31/2000
S9.C.4. Establish a program to screen stormwater outfalls for pollution discharges and identify upstream sources of pollution to the storm sewer system.	In place as of 7/31/2000
S9.C.5. Implement a watershed characterization and monitoring plan to determine stormwater water quality impact on area streams.	Started 7/31/2000
S9.D.1. Develop and implement a funding strategy for programs and services to protect local surface water and groundwater from stormwater pollution (e.g., comply with the NPDES permit).	In place as of 11/9/1999
S9.D.2. Implement an education campaign to reduce residential use of chemical pesticides and fertilizers, and	In place as of 12/31/1999

promote waste reduction.	
S9.D.3. Add two Waste Reduction Specialists to perform outreach and education directed specifically at stormwater issues with a focus on implementing pollution control BMPs for businesses and residents. These specialists will also perform site visits to provide support for businesses subject to new water quality requirements such as implementing source controls and performing storm sewer maintenance.	In place as of 3/20/2000
S9.D.4. Add one Watershed Steward to teach citizens about the importance of using BMPs to protect their surface water and groundwater from pollutants in stormwater.	In place as of 7/31/2000
S9.D.5. Add a half-time River Ranger to provide outreach and education of elementary school children. Through River Rangers education students learn about streams and rivers in their community and how to protect them from pollution.	In place as of 3/31/2000
S9.D.6. Develop a plan and schedule to minimize the use of pesticides and fertilizers by the County.	In place as of 7/31/2000
S9.E.1. Begin capital plans for urbanizing basins such as Lacamas, Whipple, Gee, and Flume basin. The plans may include evaluating existing stormwater facilities, a procedure to select projects for mitigation for existing development or stream channel rehabilitation.	Initiated as of 8/31/2000

Year 2000 Revenue and Budget

To successfully implement the programs and services listed above, Clark County, with the assistance of a citizen funding task force, developed a funding mechanism to collect about $4 million in revenue (see Figure 1). This included about $3.7 million to fund programs and services and about $300,000 or 7.5% for delinquency in payments[7].

[7] As of March 31 2001, there are, according to the Clark County Treasurer's Office, 6006 customers who have not yet paid their Clean Water Program fee. Thus, the delinquency rate is 11% percent or $443,643.

Figure 1. 2000 Revenue and Budget Summary

Description	2000 Budget	Actual Expended	Remaining	% Expended
Revenue	$5,000,000	$4,061,674	$918,326	81.2%
Enforcement	*$700,796*	*$435,468*	*$265,328*	*62.1%*
Maintenance	*$1,165,483*	*$791,264*	*$374,219*	*67.9%*
Monitoring	*$345,480*	*$194,908*	*$150,572*	*56.4%*
Public Education	*$416,527*	*$104,502*	*$312,025*	*25.1%*
Capital Outlay	*$420,610*	*$117,980*	*$302,630*	*28.0%*
Capital Outlay--Burnt Bridge Creek[1]		*$112,773*	*-$112,773*	*100.0%*
Administration	*$643,965*	*$633,685*	*$10,280*	*98.4%*
Total[2]	*$3,692,861*	*$2,390,580*	*$1,302,281*	*64.7%*
Total Carry Over[3]	$1,307,139	$1,671,093		

[1]These are funds from the former Burnt Bridge Creek Storm and Surface Water Utility. These funds will are reserved use for capital improvements in the unincorporated part of the Burnt Bridge Creek Watershed.

[2] During 2000 several factors contributed to a remaining balance. The primary reason for this difference is that the 2000 budget was developed in 1999, the goal was to get an early start on 2000 Clean Water Program activities. Many 2000 budget program costs, such as those for enforcement, maintenance, monitoring, and public education represent a full year of activities. Some of the activities including enhanced erosion control, stormwater facilities inspection, maintenance work, water quality testing and data gathering, stormwater specific outreach education, and watershed stewards did not start until March and July, respectively (the start date as identified in the NPDES permit for Clark County). Early implementation of other programs, such as the Capital Improvement Program was set back due to a lack of available qualified individuals in the job market. Savings also occurred in 2000 through more efficient use of county vehicles, equipment, and staff resources.

[3] Money remaining in the Clean Water Program at the end of 2000 remains within the program. Approximately $812,000 will be used for future capital work or to provide incentives to protect surface water and groundwater from contamination associated with stormwater. The remaining roughly $858,000 is reserved to meet fund operating requirements pending receipt of 2001 Clean Water Fees, at which time the remaining funds will be available for other purposes.

This revenue goes into an "enterprise fund" or fund dedicated solely for additionally required Clean Water Program (the National Pollutant Discharge Elimination System stormwater permit) activities. During 2000, a *Clean Water Program 2000 Service Fee* was sent to over 54,367 customers owning property in unincorporated Clark County. The fee is based upon land use and imperviousness of the parcel. It is also based on whether there are improvements on the land valued at $10,000 or more.

Land uses are categorized as single-family residential lots, single-family residential large lots, multi-family residential lots, commercial, industrial, other nonresidential lots, and

undeveloped lots. A base unit is used to calculate service charges for each lot. A base unit is 3,500 square feet of impervious surface area. This is the average impervious surface area for single-family residential lots within the urban growth area of the county. The annual fee imposed for each base unit of impervious surface area is $33.00.

The fee is as follows:

Land Use Category		**Annual Service Charge Rate**
Single-family residential detached	Less than 0.5 acre	$33.00
Single-family residential detached	More than 0.5 acre to 1.0 acre	$29.70
Single-family residential detached	More than 1.0 acre to 5.0 acres	$26.40
Single-family residential detached	More than 5.0 acres to 20 acres	$23.10
Single-family residential detached	More than 22 acres	$19.80
Multi-family residential lots	$33.00 x the number of residential units	
Retail, commercial, offices, churches, hospitals, public and private sector schools*, golf courses, government structures, other public facilities, subject to RCW 90.03.525, industrial, manufacturing, railroad-of-way, county road, and street right-of-way.	$33.00 x the number of base units or portion thereof	
State Highways**	$9.90 x the number of base units or portion thereof	

** Schools that have entered into an agreement with Clark County to provide significant benefits through educational programs, onsite stormwater facilities, and community activities related to protection and enhancement of surface water and stormwater management (provide students a first-hand understanding for the need to keep pollutants out of stormwater) may qualify for a reduction of their Clean Water fee.*

*** State law (RCW 90.03.525) allows Clark County to charge a maximum of 30% of the fee charged to like property.*

Organizational Structure

County Departments and Divisions

Clark County manages the Clean Water Program. Ensuring that all Clean Water program/NPDES permit requirements are completed on time and within budget is the responsibility of the Department of Public Works, Environmental Services Division (see Figure 2). Over the past year, Environmental Services staff have actively provided

overall coordination of the clean water fee billing process, as well as coordination of the regulation and enforcement, operation and maintenance, monitoring and evaluation, public involvement and education, and capital improvements program elements for the Clean Water Program.

Carrying out the regulation and enforcement work (compliance with the stormwater and erosion control requirements) associated with new development is the responsibility of the Department of Community Development. As part of the Clean Water Program five new inspectors have been hired to minimize problems associated with sediment washing into the County's stormwater sewer and/or into area streams, rivers and lakes.

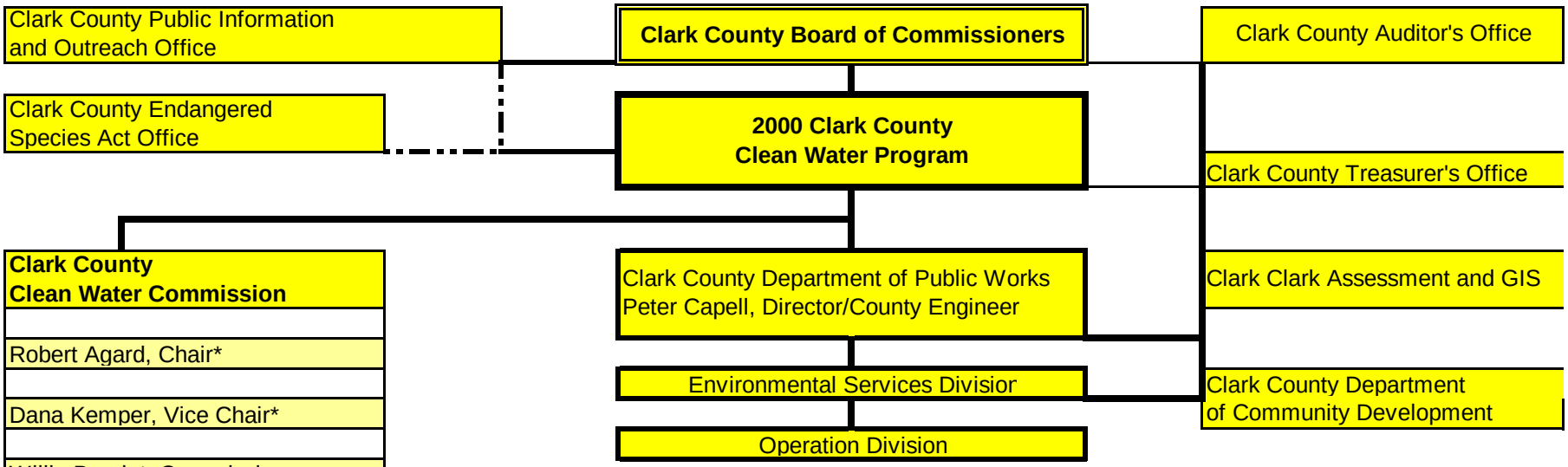
Ensuring that stormwater facilities are maintained properly is the task of Public Works Operation Division. The nine-member crew has been actively inspecting both public and private stormwater facilities, sweeping streets, and cleaning bilofiltration swales, catch basins, drywells, and roadside ditches and culverts so that they can hold and properly treat stormwater.

Monitoring the effectiveness of these programs and services within the Clean Water Program and examining the quality of stormwater entering streams is another facet of the work performed by the Environmental Services Division. County staff has established a set of computerized tracking systems to determine if stormwater facilities and new developments are being inspected as necessary, and if certain programs and services are having the desired effect of reducing stormwater pollution. County staff is also sampling stormwater discharge points to find potential sources of pollution entering the County's storm sewer system.

Environmental Services is responsible for providing education, public outreach, and technical assistance to improve community understanding and awareness for implementing stormwater protection measures. This includes working with schools, Washington State University Cooperative Extension Service, and businesses in unincorporated Clark County to use less chemicals, and if chemicals are used, teach individuals how to properly use and disposal of them. Through efforts such as River Rangers, Watershed Stewards, Natural Lawn Care Campaign, and Business Recycling Award Group programs, children and adults have learned how keep waste products (i.e., oils, solvents, etc.) from entering the stormwater system, surface water, and groundwater.

Stormwater capital improvements are also the responsibility of Environmental Services. County staff is currently identifying areas for potential stormwater quality improvements, and specifically, projects that will treat stormwater runoff from local and state roads. This effort is being closely coordinated with the monitoring program described above.

Figure 2. Clean Water Program: Organizational Structure



** In 2001, Dana Kemper is the Chair and Robert Agard is Vice Chair*

Clean Water Commission

Providing oversight of the Clean Water Program is one of the Clark County Clean Water Commission's responsibility. The Clark County Clean Water Commission comprises nine members (citizens from unincorporated Clark County) who serve as an advisory body on Clean Water related issues to the Board of County Commissioners (Board).

The Commission duties include:

- Represent a balanced interest in storm and surface water treatment and regulation;
- Make recommendations to the Board of County Commissioners on matters such as the focus of the *Stormwater Management Program*, program service levels, financing (provide oversight of the program budget and activities), and policies on surface and stormwater issues;
- Report to the board (reporting will be done by the Chair and Vice Chair of the Commission) their recommendations for creating an incentive program through which service charges may be adjusted in circumstances where property owners significantly reduce the impacts of stormwater runoff;
- Report quarterly (reporting will be done by the Chair and Vice Chair of the Commission) and provide an annual report, signed by all Commission members, to the board of county commissioners on the effectiveness of the Clean Water Management Program. This report will include:
  - Establishing the criteria for evaluating the effectiveness of the program and set forth the criteria in order to make an annual report to the Board;
  - A plan for the upcoming year in addition to evaluating the effectiveness of the program from the preceding year in the annual report;
  - A summary of revenues and expenditures by watershed, zip code, or other easily identifiable geographic means; and
  - A summary of public comments;
- Promote clean water/stormwater program coordination among other agencies, groups, and citizens at large.

Future Products and Budget

The Clark County Clean Water Program's current NPDES permit expired December 31, 2000. However, the current permit will remain in effect until the Washington Department of Ecology issues a new permit, which is anticipated in mid to late 2001. The next permit will be a five-year permit and will likely require the regulatory, maintenance, monitoring, education, and capital work identified in the current permit to be enhanced.

Products

In 2001 the following programs and services are planned:

- Continued technical assistance to businesses in reducing chemical use and/or proper use and disposal;
- Continued adult and school age education about how to protect local water resources from pollution;
- Ongoing inspection of public and private stormwater facilities;
- Continued inspection and enforcement under the latest stormwater and erosion control ordinances;
- Ongoing education of Clark County staff to provide consistent and correct application of regulations and implementation of best management practices;
- Possible modifications to the development regulations as a result of changes to the NPDES permit Washington Department of Ecology Final Draft Stormwater Water Management Manual for Western Washington, Volume 1-5 (August 2000 edition);
- Continued cleaning of road surfaces to remove pollutants before they enter catch basins, drywells or surface water and groundwater;
- Ongoing cleaning and maintenance of grassy swales, stormwater holding ponds, catch basins, manholes, drywells, stormwater pipes, roadside ditches, and culverts to ensure stormwater does not cause erosion or other water quality impacts to streams, rivers, lakes, or to groundwater;
- Continued collecting information about the effectiveness of the Clean Water Program and collecting data about water quality to ensure current programs and services are working.);
- Obtain trend information to make informed decisions as to the overall goals; and
- Continued work to determine where capital improvements should occur to improve treatment of stormwater and minimize erosion caused by stormwater runoff.

Budget for 2001-02 (Bi-annual Budget)

As part of the Clark County budget development process, the budget for the Clean Water Program is a two-year (24-month budget)(see Figure 3).

Figure 3. 2001-2002 Revenue and Budget Summary

Description	Budget 2001	Budget 2002	Total*
Enforcement	$562,067	$562,067	$1,124,134
Maintenance	$1,164,167	$1,164,167	$2,328,334
Monitoring	$656,674	$656,674	$1,313,348
Public Education	$466,311	$466,311	$932,622
Capital Outlay	$426,941	$426,941	$853,882
Administration	$389,976	$389,976	$779,952
Total*	**$3,666,136**	**$3,666,136**	$7,332,272

**This is an estimated budget that is split evenly over a 24-month period for illustration purposes. Actual expenditures may vary depending on the nature of the work and requirements of the new NPDES permit.*

Recommendations

To enhance the Clean Water Program, the Clark County Clean Water Commission recommends that Clark County:

- Develop, for its Clean Water Program operation and maintenance work, a schedule based upon past records of problem areas, not standards found in other communities.
- Complete a centralized stormwater management data system in 2001.
- Implement stormwater capital plans for each watershed in unincorporated Clark County to address stormwater quality problems.
- Have the additional inspectors and support staff for erosion control and new development be placed under the proper department (or budget) and not part of the Clean Water Program budget.
- Continue County staff education to ensure correct and consistent application of water quality regulations and best management practices.

General Overview and Conclusion

During 2000, the Clark County Clean Water Program has made substantial progress in developing and implementing programs and services that comply with the Washington State Department of Ecology NPDES permit. Clean Water Program dollars have and are being spent efficiently. Within the program there is strong coordination among County offices, departments, and divisions. As part of the program, the community is being educated about and has opportunities to participate in clean water efforts (keeping pollutants out of stormwater). There is also high-quality customer service (customers have direct access to County staff and to the Clark County Clean Water Commission) within the program. Finally, the Clean Water Program is making steps toward protecting our groundwater, streams, lakes and other surface waters for beneficial uses such as water supply purposes, recreational uses, fish rearing, and wildlife habitat by controlling the adverse impacts of stormwater runoff which are principally pollutants and excessive stormwater flows.

# # #

Contact Information

For more information about the Clean Water Program, please call Earl Rowell at Clark County Public Works Department (360) 397-6118, extension 4580 or Kelli Frost at extension 4345 (E-mail: cleanwater@co.clark.wa.us).

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